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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,671	07/11/2001	Donald Zaff Rogers	DEP05507-RE	5452

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EXAMINER

NAKARANI, DHIRAJLAL S

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/901,671

Applicant(s)

ROGERS, DONALD ZAFF

Examiner

D. S. Nakarani

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 and 48-54 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-46 and 48-54 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 28-44, 46 and 51-54 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The negative limitations "no parallel surfaces" recited in claim 28, line 4; claim 40, line 4; claim 44, line 4 and in claim 51, line 11; and the negative limitations "no substantially parallel surfaces" recited in claim 35, line 6, which did not appear in specification as filed, introduce new concepts and violate description requirement of 35 USC § 112 (See Ex parte Grasselli, 231 USPQ 393(Bd. App.1983) and MPEP 2173.05(i)).
3. Claims 13-15, 45 and 48-50 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed fail to describe (1) "a substantially transparent, three dimensional, non-uniform dimension in any orthogonal direction, substrate having at least one curved surface and

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at least two maximum dimensions substantially the same" (Claim 13), (2) "a substantially transparent, three dimensional substrate having at least one curved surface and substantially the same maximum dimensions in at least two orthogonal directions" (claim 45), (3) "a substantially transparent, three dimensional substrate having substantially the same maximum dimensions in at least two orthogonal directions and at least one generally circular cross-section" (claim 48), (4) "a substantially transparent, three dimensional substrate having at least one curved surface and at least one generally circular cross-section" (claim 49) and (5) "a substantially transparent, three dimensional substrate non-uniform in any orthogonal dimension and having at least one curved surface and at least one generally circular cross-section" (claim 50).

All above mentioned limitations are derived from a single species, namely "a substrate composed of lead crystal glass and formed in the shape of a turtle" (Example 2). There is no evidence in the originally filed specification that applicant had possession of articles such as automobile windshield (see U.S. Patent 6,068,914, Fig. 2 and column 2, line 65 to column 3, line 51), micro spheres (U.S. Patent 6,288,837, Fig. 6, column 9, lines 48-65), optical fibers, sunglasses etc. These articles are encompassed by these claimed limitations. However, the specification as originally filed lacks description of above-mentioned limitations. Further more, a single species (turtle) does not provide support for wide number of articles covered by these claims (See MPEP 2163.05, under "Addition of Generic Claim").

4. Claims 17-20 and 22-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed, fail to describe (1) a three dimensional substrate having maximum height, width, and depth dimensions substantially the same" (claim 17) and (2) "a substrate having a maximum depth dimension substantially the same as both its height and width dimensions" (claim 22).

All above-mentioned limitations are derived from a single species namely "a substrate composed of cubic zirconium dioxide and formed with cut and polished facets (Example 1)". There is no evidence in the originally filed specification that applicant had possession of articles such as micro spheres (U.S. Patent 6,288,837), prisms used in optical instruments etc. These articles are encompassed by these claims. However, the specification as originally filed lacks description of above-mentioned limitations. Furthermore, a single species (cubic zirconium dioxide) does not provide support for wide number of articles covered by these claims (MPEP 2163.05 under "Addition of Generic Claim").

5. Claims 13-15, 17-20, 22-25, 28, 29, 31-33, 35-46, and 48-54 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a substantially transparent substrate of size and shape suitable for use as decorative

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objects (such as turtle) and gemstones, does not reasonably provide enablement for a substantially transparent substrate of size and shape suitable for use as non-decorative objects such as windshield (U. S. Patent 6,068,914), micro spheres (pigment) (U. S. Patent 6,288,837), wave guides, optical filters, optical fibers etc. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. The specification as originally filed is enabling for a substantially transparent substrate of a size and shape suitable for use as decorative objects and gemstones. The specification as originally filed is not enabling objects such as spherical pigment particles, windshield, optical filters, wave-guides, optical fibers, flash lamp (U.S. Patent 4,925,259, Fig. 12, column 3, lines 37-60) etc. (MPEP 2163.05, under "BROADENING CLAIM).

6. Claims 1-16, 27, 45, 49 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Austin (U.S. Patent 5,332,618) in view of Perilloux (U.S. Patent 4,793,669), Broadhurst (U.S. Patent 3,752,567) and applicants' own admission (column 3, line 64 to column 4, line 11).

Austin discloses an article of manufacture such as sunglasses (column 1, line 12) comprising a transparent substrate such as glass, plastic materials (column 9, lines 10-15), coated with alternating layers of substantially non-absorbing (transparent) high and low refractive index materials (column 3, lines 50-57). The glass substrate coated on both surfaces is disclosed (column 6, lines 43 and 44 and column 7, lines 21-24).

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Austin's curve 48, (Fig. 8), curve 66 (Fig. 13) and curve 70 (Fig. 15) show some reflection of light with wavelengths between 400 nanometers and 700 nanometers.

Austin discloses coating methods such as sputtering, chemical vapor disposition, plasma assisted chemical disposition process, wet chemical immersion etc. (column 9, lines 23-33). Austin's low refractive layer forming materials include silicon dioxide, magnesium fluoride etc. (claim 5), high refractive index material such as titanium oxide, cerium oxide, bismuth oxide, zinc-oxide, zinc sulfide etc. (column 8, lines 47-59).

Austin's coated glass for sunglasses deemed to be suitable for making sunglasses for eyes. The sunglasses are deemed to be an ornament because the term "ornament" means anything, which enhance the appearance. A blind person wears sunglasses to improve appearance and not to protect eyes.

Austin fails to disclose (1) shape of coated glass used for making sunglasses, (2) Reflecting higher amount of selected wavelength of visible light and (3) at least two non-parallel curved surfaces.

Applicant admit that design and use of multi-layer optical interference films to selectively reflect certain wavelengths of light are well known in the art; modern practices in design, use, and manufacture of such thin film optical filters (column 3, line 64 to column 4, line 11). Sunglasses in addition to an ornament are also considered as an optical filter.

Perilloux disclose sunglasses that have selected color such as blue, orange or violet (Abstract). Perilloux also teach a multilayer coating of high and low refractive index materials (column 2, line 55 to column 3, line 11).

Broadhurst teach circular lenses, square lenses and octagonal shaped lenses and lens frames for ordinary eyeglasses and sunglasses. The circular lens has at least one curved surface and two orthogonal dimensions the same, at least non-parallel curved surfaces (see definition of word "lens" given in Webster's New World Dictionary of American English, Third College Edition page 773(copy enclosed)), circular cross section (column 1, lines 12-15, eyeglass lenses 18a, 18b, 18c and 18d in Fig. 1, column 2, lines 42-52) and is non-uniform in each orthogonal dimension. Eyeglass lens is three dimensional since it has thickness, height and width.

Therefore it would have been obvious to a person of ordinary skill in the art at the time of this invention made to utilize disclosure of Perilloux and Broadhurst in the invention of Austin to make desired colored sunglasses in the circular shape or any other known size and shapes.

7. Claims 17-26 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Etzkorn et al (U. S. Patent 5,236,511) in view of Hettich et al (U. S. Patent 4,769,290) and Applicant's own admission (Col. 3, line 64 to col. 4, line 11).

Etzkorn et al teach dome shaped reflector (Col.1, lines 15-25) comprising dome shaped glass substrate coated inside and/or outside face with alternating layers of high and low refractive index materials (Examples 1 and 2 and Figs. 1 and 2). Etzkorn et al teach coating strongly arched large area substrate such as domes (column 2, lines 38-46). Etzkorn et al's dome may have height, width and length dimensions the same (Col. 5, lines 19-29). Etzkorn et fail to disclose high refractive index material such as

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tantalum oxide, titanium oxide and hafnium oxide and low refractive material such as silicon dioxide

Hettich et al disclose high efficiency reflectors reflecting more than 99.99% of incident light at one or more specific wavelengths in the range of about 300 to about 1200 nanometers. While admitting a substantial portion of incident light at all other wavelengths in this range. The wavelengths range includes ultraviolet light wavelengths and infrared light wavelengths. Since Hettich et al's reflector transmit (admit) other non-selected wave lengths it is also considered as an optical filter Hettich et al's reflectors comprises substrate coated with an alternating layers of high and low refractive index materials (Example). Hettich et al disclose high refractive index material such as tantalum oxide, titanium oxide and hafnium oxide and low refractive material such as silicon dioxide (Claim 13 and col. 2, lines 5-12).

Applicant admit that design and use of multi-layer optical interference films to selectively reflect certain wavelengths of light are well known in the art; modern practices in design, use, and manufacture of such thin film optical filters (column 3, line 64 to column 4, line 11).

Therefore, in absence of establishing criticality of substrate having height, width and length dimensions substantially the same, it would have been obvious to a person of ordinary skill in the art to which this invention pertains to utilize disclosure of Hettich et al in the invention of Etzkorn et al to coat dome shaped article with coating material disclosed by Hettich et al and to reflect any desired wavelengths of light. Dome shaped

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reflector having height, width and length substantially the same is considered within the skill of the art and/or is design choice depending on application of reflector.

8. Applicant's arguments filed June 17, 2005 have been fully considered but they are not persuasive. In reference to rejection of claims under 35 USC § 112, First paragraph stated in paragraphs 5 and 6 of the Office Action mailed May 31, 2005 (Paper Number 20050506) for lack of description and/or support in the original specification applicant mainly argue that species of Example 1, namely gemstone (cubic zirconium dioxide) and species of Example 2 namely decorative object turtle and drawing Fig. 1 provide support for those limitations. The Examiner agrees to all statements set forth in sections I & II of the REMARKS filed on June 17, 2005. However rejected claims are not directed to argued gemstones and/or decorative object such as turtle. Rejected claims are directed to an article of manufacture and encompass articles such as recited in paragraphs 5 and 6 of the Office Action mailed May 31, 2005 (Paper Number 20050506).

Applicant state in regard to citation of art (i.e. articles) that if the claims can be read on automobile windshield of the cited prior art, then the Examiner should make an art rejection, and examiner has tacitly admitted that this cannot be done by failing to make the rejection. These arguments are unpersuasive because the Examiner had not rejected using cited art since those documents have filing date after the effective filing date of this application.

In reference to rejection of claims under 35 USC § 112, First paragraph stated in paragraph 7 of the Office Action mailed May 31, 2005 (Paper Number 20050506) for as not being enabling for non-decorative objects, applicant state that the limitation of original Claim that has been omitted is a limitation of the size and shape of the objects (suitable for use as decorative objects and gemstones), and that there has never been a claim limitation as to the use to which the claimed objects could be put. Even if such limitation existed, the examiner has the burden of showing that the limitation is disclosed as critical, and he has not even attempted to do identify any evidence on which his position is based.

The Examiner does not understand what applicant is trying to say. It is nit clear to Examiner whether applicant is referring to original patented claim or to rejected claims? Clarification requested. The Examiner has provided evidence showing that the disclosure is not enabling for non-decorative objects such as recited in afore said Office Action.

In reference to rejection of claims 1-12 under 35 USC § 102(b), as being anticipate by Austin, applicant mainly argue that Austin discloses the coating of a substrate of uniform thickness on both major and parallel surfaces with a multilayer film structure that is anti-reflecting and UV rejecting. As shown in Figures 6, 8, 11 and 15, the coating does not preferentially reflect light between 400 and 700 nanometers Applicant further state that Austin's sunglasses are not three dimensional nor non-uniform in thickness.

These arguments are unpersuasive because Austin's Figures 3, 11, 13 and 15 shows reflection of light between 400 and 700 nanometers. Austin's sunglasses are three dimensional because they have thickness, height and width. Austin's vision corrective sunglasses do not have uniform thickness as argued (See Dictionary definition of lens). Sunglasses can have non-uniform dimension in any orthogonal dimension since wide variety of sizes and shapes of sunglasses are on market.

In reference to rejection of claims 1-17, 22-27, 35-43 and 45-47 under 35 USC § 103 (a) as being unpatentable over Austin, Perilloux, Broadhurst and applicant's admission, applicant state that 35 claims of significantly differing scope, eight of them independent, on the combination of 4 references is manifestly improper. Further applicant also states that Austin has been discussed. Perilloux discloses a sunglass lens that partially reflects a desired color while maintaining neutral transmitted color. As argued in the interview before the examiner and his supervisor, and admitted by the supervisor, the teaching of these two patents is directly opposite.

Broadhurst discloses that it is common for eyeglass manufacturers to supply a tinted lens having a circular shape. Broadhurst does not disclose that the lens is reflective or decorative of the wearer. Broadhurst does not disclose that any major surfaces of the lens are curved or the lens is three dimensional.

These arguments are unpersuasive for the following reasons:

Applicant is requested to NOTE that in the Office Action mailed May 31, 2005 (Paper No, 20050506), paragraph 10, line 1, "Claims 1-17, 22-27, 35-43 and 45-47" should have been – Claims 1-16, 22-27, 35-43 and 45-47 --. The Examiner apologizes

for any inconvenience caused by this typographical error (i.e. inclusion of claim 17 by error).

Austin's Fig. 13, curve 66 clearly shows reflection of pronounced purple color (Col. 7, lines 60-65). Thus Austin's sunglasses would appear purple to a person looking at wearer. Perilloux teach sunglasses that have selected color such as blue, orange or violet. Perilloux's teaching of neutral transmission applies to sunglasses wearer. However person looking at wearer sees sunglasses of recited colors.

Broadhurst patent used to show shapes of sunglasses. Vision corrective circular lens has non-parallel curved surfaces (See definition and drawing given in Webster's Dictionary, page 773 (enclosed)).

Comment regarding admission of Examiner's supervisor during interview that Austin's patent and Perilloux's patent are not combinable is not understood since at the time of the interview the Perilloux patent was not of record. Perilloux patent is not limited to reflectors. Perilloux teaches sunglasses. Therefore Austin patent and Perilloux patent are combinable.

As explained above sunglasses are three dimensional object when coated both side encompasses coating substantially entire surface, circular lens, as explained above has non-parallel major surfaces and curved surface and two equal maximum dimension in orthogonal directions. The limitation "non-uniform dimensions in three orthogonal directions did not appear in the rejected claims.

In reference to rejection of claims 17-26, 28-44 and 46-48 under 35 USC §103(a) as being unpatentable over Etzkorn et al in view of Hettich et al and Applicant's own

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admission, applicant mainly argue that there is no disclosure of a coating of entire surface of the solid three dimensional object and there is no disclosure of the same maximum dimensions in three orthogonal directions. Hettich discloses the use of a multilayer coating to selectively reflect plural bandwidths of light each only 25 to 50 nanometers.

These arguments are unpersuasive because rejected claims do not require to have solid three dimensional objects. As stated in the Office action dome shaped reflector having height, width and length substantially the same is considered within skill of the art and/or is design choice depending on application of reflector. Hettich et al reference used for showing high refractive index material such as tantalum oxide, titanium oxide and hafnium oxide and low refractive material such as silicon dioxide used as coating materials in the reflector art. The limitations "non-parallel major surface" and "non-uniform dimensions in three orthogonal directions" are not in the rejected claims.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

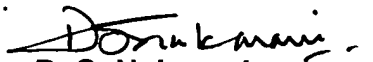
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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10 Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. S. Nakarani whose telephone number is (571) 272-1512. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


D. S. Nakarani
Primary Examiner
Art Unit 1773

Dsn
September 22, 2005.